

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Consumer Protection and Safety Division
Rail Transit Safety Section

Resolution ST-77
April 21, 2005

RESOLUTION

RESOLUTION ST-77 AUTHORIZING THE SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT TO DEVIATE FROM GENERAL ORDER 95, RULE 79.4 - B AND 79.4 - D. THIS CANCELS RESOLUTION SU-12 (1992).

Summary

This Resolution grants The Bay Area Rapid Transit District's (BART) request to raise the height of concrete barriers from a maximum of three feet as allowed in Resolution SU-12 (1992) to higher than three feet in some locations to prevent intrusions into BART right-of-way. This resolution cancels Resolution SU-12 that granted a deviation to allow a three feet wall and four feet fence instead of a seven feet fence.

Background

1. On March 31, 1992 the Commission approved Resolution SU-12, authorizing BART to deviate from General Order (GO) 95 Rules 79.4 - B and 79.4 D, relating to right-of-way fencing and gates. Resolution SU-12 allowed BART to substitute concrete barriers for the bottom three feet of the required fencing and access gates at approximately one-half mile intervals for emergency personnel and equipment, but not for vehicles. The gates were to be four feet wide, and wherever practicable provide at-grade access when concrete barrier protection was not required. The fenced right-of-way included four line extensions.
2. BART is concerned that the current three feet concrete walls are not sufficient in some locations to protect against vehicles or debris from entering the right-of-way. On March 4, 2005 BART submitted a letter to the Rail Transit Safety Section requesting that the Commission grant a modification to Resolution SU-12 to remove the three feet "maximum" concrete barrier height stipulation. From BART's experience of utilizing concrete barriers it has ascertained that raising the height of concrete barriers above the three feet level in certain locations will

provide an extra margin of safety to prevent intrusion upon BART's right-of-way.

3. Approximately 900 feet of fencing has been installed along the 580 corridor between mile posts 20.1 and 20.3. This barrier was approved by the Department of Transportation (CalTrans).
4. BART's Safety Department has identified several areas as an increased risk. These priority areas were identified through incident analysis by calculating the intrusion frequency rates into the BART right-of-way. As a result BART is planning to install several miles of the six feet concrete barrier fencing along its various corridors to prevent vehicle intrusions on its right-of-way. This type of barrier fencing is very expensive and it is anticipated that this project will be done on an incremental basis that may take several years to complete.

Notice

Notice of BART's request was published in the Commission's Daily Calendar on March 24, 2005.

Protests

None.

Discussion

1. BART's incident analysis showed that most incidents where vehicles hit the highway median strip occurred on the 580 corridor. Between January 2003 and December 2004 there were twenty-seven incidents where vehicles hit highway medians along BART's right-of-way. Twenty-one (seventy-eight percent) of these occurred on the "L" line in the 580 corridor. In one of these incidents the vehicle broke a concrete barrier and nearly entered into BART's right-of-way. BART considered it prudent to raise the concrete barriers above the current three feet in high risk areas particularly along the 580 corridor.

2. BART believed that they were in compliance with the variance granted by SU-12 and did not request a deviation for raising the height of the concrete barriers from three to six feet for the section of fencing from mile posts 20.1 to 20.3 on BART's "L" line along the 580 corridor. The deviation granted in SU-12 authorized BART to deviate from General Order 95, Rule 79.4 - B "MATERIAL AND HEIGHT," when the BART at-grade right-of-way was within a highway median. Under these conditions fencing could be constructed of concrete to a **maximum height of three feet** above the highway grade level. The concrete section of fencing was to function as a barrier to prevent vehicle intrusion or damage to the fencing. The deviation stated: "that the remaining portion of the fencing shall be constructed as required in General Order 95, Rule 79.4 and "FENCING."
3. General Order 95, Rule 79.4 -B states: "Fencing material shall be of Galvanized steel, woven mesh or links (commonly known as chain-link or cyclone fencing), extending from ground level to a minimum height of seven feet. Above said seven foot height, there shall be installed an inclined extension of not less than 12 inches, to which shall be attached no fewer than three strands of barbed wire, with said extension being inclined 45 degrees away from fenced facilities wherever possible."
4. General Order 95 – C "Barrier Protection of Fencing" states that "Wherever the rights-of-way and its fencing are adjacent to thoroughfares or highways (such as in, but not limited to, highway median strips) suitable barriers shall be at all times present between the fencing and the thoroughfare or highway in order to prevent vehicular contact with or damage to the fencing." BART has determined that a concrete barrier higher than three feet is more suitable in preventing incursions in certain high speed high traffic areas. There have been no incursions between mile posts 20.1 to 20.3 along the 580 corridor since the completion of the retrofitted concrete barrier.
5. As in SU-12, the personnel/equipment gates are to be four feet wide and securely locked, with the local fire jurisdiction provided with lock and keys. Four feet wide gates are appropriate because vehicles cannot traverse the tracks and third rail and the narrow confines of the right-of-way does not allow for vehicle roads therein. BART will continue to

seek local fire jurisdiction input on key points like blue light stations and standpipes.

6. BART obtained the approval from the Fire Liaison Committee (FLC), which serves in an advisory capacity for the fire districts in BART's service area and the Department of Transportation (CalTrans) for the deviation in SU-12.
7. CPUC staff have met with BART's Safety Department and confirmed with the BART staff that the new fencing will be approved by CalTrans. CPSD recommends that BART be required to obtain written approval for all highway median concrete barrier construction.

Findings

1. BART requests a deviation from GO 95, Section 79.4 "Fencing" and Resolution SU-12 to raise concrete barriers to a height greater than three feet along highway medians that are designated as high risk by BART's Safety Department.
2. Between January 2003 and December 2004 there were twenty-seven incidents where vehicles hit highway medians along BART's right-of-way. Twenty-one of these incidents occurred along the "L" line on the 580 corridor with one breaking the concrete barrier.
3. Raising the height of concrete barriers above three feet will protect against automobiles or highway debris from entering the BART right-of-way.
4. BART's Safety Department confirmed that the new fencing will be approved by CalTrans before construction begins.
5. The personnel/equipment gates will remain the same as in SU-12. The gates will be four feet wide with a three feet concrete barrier above the highway grade level. These gates will be securely locked, with local fire jurisdiction provided with lock and keys.

6. BART will continue to seek local fire jurisdiction input on key points like blue light stations and standpipes and access to BART's right-of-way.

Comments

This is an uncontested matter in which the decision grants the requested relief. Therefore, pursuant to Public Utilities Code § 311(g)(2), the otherwise applicable 30-day period for public review and comment is being waived.

Therefore, IT IS ORDERED that:

1. BART's request to deviate from GO 95 is granted with the following conditions:
 - a) BART is authorized to deviate from General Order 95, Rule 79.4 – B “Material and Height.” When the BART at-grade right-of-way is within a highway median, the required fencing may be constructed with a concrete barrier forming the bottom portion of the fence. When the concrete barrier is more than three feet in height, the barrier will be lowered to three feet at the personnel/equipment access gate locations.
 - b) BART is authorized to deviate from General Order 95, Rule 79.4 – D, “Gates, “ by providing gates for personnel/equipment but not vehicles, along the at-grade BART right-of-way in those areas that are designated to be retrofitted or requiring a concrete barrier three feet or higher.
 - c) Gates shall be four feet wide and located at approximately one-half mile intervals.
 - d) Where concrete barrier protection is not required or not used, when practicable, gates will provide at-grade access.
 - e) BART shall coordinate the location of personnel/equipment gates relative to street intersections, standpipes, blue light stations and other key points with the fire service agencies with local jurisdiction.

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2. The fencing and access gates shall conform to all other requirements contained in General Order 95, Rule 79.4, and "FENCING" and will be appropriately designed to deny public access to the BART right-of-way.
3. BART will obtain approval from CalTrans before modifying the fencing/barriers.
4. Resolution SU-12 is cancelled.
5. This resolution is effective today.

I certify that this resolution was adopted by the Public Utilities Commission at its regular meeting held on April 21, 2005. The following Commissioners voting favorably thereon:

STEVE LARSON
Executive Director